Applicant respectfully traverses the rejection of claim 28 under Section 112(1) because the Specification describes the exponential function modifying the pulse-train function, as is evident at page 12, lines 15-21 of the Specification. Upon request, Applicant would gladly provide further clarification.

In regard to the §102(b) rejection of claims 1-27 and 29-32, Applicant respectfully traverses because the cited portion of the '588 reference does not teach or suggest every element of the claimed invention. For example, the present invention is directed to subject matter including the limitations concerning "... a plurality of sequences of variable-amplitude pulses, each of the sequences having a different average amplitude value" (*see, e.g.*, claim 1). In contrast, the asserted '588 reference does not teach or suggest the claimed invention including at least this aspect. For example, the '588 reference states at column 4, lines 22-24: "Its output, on line 32, is a current gain level for which sequence of <u>equal</u> amplitude pulses is to be determined..." (emphasis added). Similarly, the '588 reference states at column 4, lines 30-31: "The pulse sequence is a series of positive and negative pulses having the current gain level." Thus, contrary to the assertions in the Office Action, the cited portions of the '588 reference do not correspond to the subject matter claimed.

With particular regard to the rationales behind the rejections of dependent claims 9 and 16, Applicant fails to see how the cited portion of the '588 reference bears any relation whatsoever to the particular subject matter set forth in this claim. With respect to claim 9, for example, the citations do not correspond to the subject matter claimed in regards to any of the noted aspects of pulse amplitude variations within a sequence or to any aspect of the claim terms "exponential" or "excitation signal from previous frames". Similarly, with respect to claim 16, the citations do not correspond to the subject matter claimed in regards to the claim terms "pulse sequence modification function" or "excitation signal from previous frames".

In contrast and counter-intuitive to this teaching of the '588 reference, as set forth in each of Applicant's independent claims, the claimed invention is directed to the pulse sequences being a series of positive and negative pulses but with these pulses having amplitudes that vary in some structured or defined way (e.g., as an exponential function). In any event, Applicant respectfully submits that the §102(b) rejection of claims 1-27 and 29-32 should be withdrawn because a *prima facie* case of anticipation cannot be maintained. Should this §102(b) rejection be

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maintained, Applicant requests a more clear explanation of the rationale being used and of the asserted interpretation of the cited portions of the '588 reference.
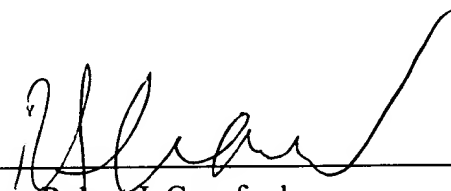
Applicant also respectfully traverses the §103 rejection of claim 28 and the Official Notice taken in connection with this rejection. The Office Action has failed to provide a reference that teaches or suggests the combination regarding the modification of the exponential function as asserted against claim 28. Should this §103 rejection be maintained, consistent with M.P.E.P §2144.03, Applicant requests corroborating documentation in support of such alleged well known prior art as well as evidence of its combinability (under §103) with the teachings of the '588 reference.

In view of the above, Applicant submits that each of the claims is in condition for allowance. Reconsideration and withdrawal of the rejections, along with a favorable response, are earnestly requested.

If appropriate, please charge charge/credit any additional, necessary fees to Deposit Account No. 50-0996 (8X8S.239PA).

Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is encouraged to contact the undersigned at 651/686-6633.

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